

Bayer cuts price of ciprofloxacin after Bush threatens to buy generics

Fred Charatan *Florida*

The Bush administration has won a major price concession from the German drug company Bayer AG for its antibiotic ciprofloxacin (Cipro), after threatening to buy generic alternatives.

The Centers for Disease Control and Prevention (CDC) had recommended ciprofloxacin as the antibiotic of choice for both inhalation and cutaneous anthrax (*MMWR Weekly* 2001;50:917-8 (tables 1 and 2)), although this week it changed its advice, and decided to recommend doxycycline.

Dr Bradley Perkins, an anthrax specialist at the CDC, was quoted in the *New York Times* (2001;Oct 30: B8) as saying that the centres were now recommending doxycycline because drug resistance was "less of an issue with doxycycline."

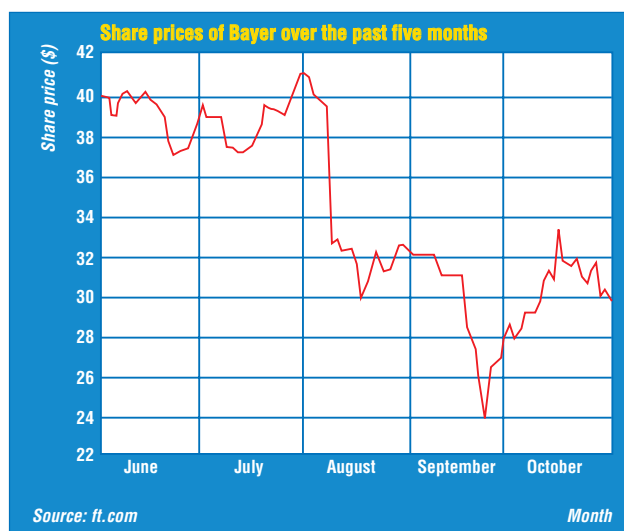
Before the new advice was issued, however, Bayer agreed to sell 100 million tablets of ciprofloxacin to the government at 95 cents (66p) each—54% of its original wholesale price of \$1.77. Three other drug manufacturers said that they would supply large quantities of their antibiotics free if the Food and Drug Administration approved their use for the treatment of anthrax.

The companies are Bristol

Myers Squibb, offering gatifloxacin (Tequin), and Johnson and Johnson, offering levofloxacin (Levaquin). Glaxo-SmithKline is asking the FDA to approve for the treatment of anthrax two of its older drugs. It said that it would supply free all the medication the government needed to treat anthrax. Eli Lilly and Pfizer also offered to provide drugs at cost.

The anthrax outbreak might turn out to be a lifeline for Bayer after the company was forced to withdraw its cholesterol lowering drug, cerivastatin (Baycol in the United States; Lipobay in the United Kingdom) last August after 31 patients in the United States died from severe rhabdomyolysis (18 August, p 359; 25 August, p 415). The company's share price fell from more than \$40 a share in August to \$24 in September. It has now made a modest recovery to about \$30.

With the Bayer deal, the National Pharmaceutical Stockpile (a programme run by the CDC) will have accumulated 120 million ciprofloxacin tablets by the end of the year. That would be adequate to treat 12 million Americans, but only for five days. Under the latest *MMWR* guidelines for treating pulmonary and cutaneous anthrax



for 60 days, the ciprofloxacin would be adequate for only one million people.

"Bayer is fully committed to supporting America in its war on terrorism," said Helge Wehmeier, president of the American subsidiary of Bayer AG. "The men and women of Bayer are 100% committed to delivering this vital antibiotic to the US government on schedule."

Doctors and scientists are beginning to worry that the widespread use of ciprofloxacin could lead to the development of antibiotic resistance. Dr Ken Alibek, president of Hadron Advanced Biosystems, a private research company that is trying to develop broad respiratory resistance to the full range of evolving biological weapons,

warned about the dangers recently in the *New York Times* (2001;Oct 28:B3).

"If this craziness with Cipro continues, in about two years we're going to have a huge number of new bacteria with powerful resistance to antibiotics," he said. "Antibiotics should be the last resort."

Dr Alibek, author of the book *Biohazard* (Hutchinson, 1999), which exposed the former Soviet Union's biological warfare establishment, added: "It's part of the panic, chasing each new immediate threat but never thinking several steps ahead." □

More details about the CDC's recommendations on anthrax are accessible at www.cdc.gov (see editorial by Hart, p 1017)

Mass hysteria is seen as main threat from bioweapons

Andrew Moscrop *London*

Biological weapons pose more of a psychosocial threat than a physical danger, a Royal College of Physicians seminar heard last week.

Speakers suggested that biological weapons were "not very good" at causing death or destruction, but they warned of the dangers of public panic and loss of confidence in the authorities. The seminar on biological weapons was held "to try and get

away from hype and the atmosphere of fear," said Sir George Alberti, president of the college.

Professor Simon Wessely of the Institute of Psychiatry urged caution in the handling of possible biological weapons attacks. "Interventions have their own side effects," he said, pointing out that the deployment of investigators in space suits may cause "mass panic." Professor Wessely said it was more important "to be combating the psychological threat" of biological terrorism by providing the public with "sound, sensible information" that was "accurate and reassuring." He suggested that biological weapons were weapons not of mass destruction but of mass hysteria. Nevertheless, people will learn to live with the threat of

biological terrorism, he added. "When psychological weapons lose their novelty, they lose their primary potency, which is their capacity to cause fear," he said.

But the chief medical officer, Liam Donaldson, defended active interventions. "I would rather overreact at this stage," he said. Professor Donaldson also reassured the seminar that Britain is ready to respond to biological attack. In the event of an attack with variola virus, for example, stocks of smallpox vaccine were at the ready. But he admitted it was not yet clear if there was enough vaccine.

Several speakers highlighted the inadequacies of biological weapons. Professor Wessely said they are "not really very good weapons at all." Biological

weapons, he added, are inefficient, unpredictable, and more likely to harm their users than their intended targets. Dr Alastair Miller of the Worcester Acute Hospitals Trust said that anthrax was a particularly poor weapon because it could not be spread directly between people and the disease could be prevented by vaccination or treated with antibiotics.

Healthcare staff would be the first to notice a covert biological attack, said Dr Nick Beeching from the Liverpool School of Tropical Medicine. He called on doctors to be alert for any unusual increase in the incidence of gastric or respiratory symptoms and inform the public health authorities quickly if they suspected bioterrorist activity. □